

"COMPENSATION" BY AMOUNT SMOKED

**SHORT-TERM EXPERIMENTAL BRAND-SWITCHING STUDIES (STEPNEY REVIEW)
MASSIVE DECREASES IN YIELD → MODEST INCREASES IN CONSUMPTION**

**CPS I 12 YEAR FOLLOW-UP (GARFINKEL)
CHANGE IN T/N YIELD NOT CORRELATED WITH CHANGES IN NUMBER
SMOKED OVER 12 YEAR PERIOD**

**NATIONAL TRENDS IN AMOUNT SMOKED
LITTLE INCREASE IN AMOUNT DESPITE MASSIVE DECLINE IN YIELD
(INCREASE MAY BE DUE TO LIGHTER SMOKERS GIVING UP)**

**CROSS-SECTIONAL SURVEY DATA
SMOKERS OF LOW TAR CIGARETTES SMOKE FEWER CIGARETTES PER DAY
THAN SMOKERS OF MIDDLE TAR CIGARETTES (DUE TO SELF-SELECTION)**

"COMPENSATION" BY MANNER OF SMOKING (1)

STEPHEN (1989)

**REVIEW OF 17 INTERVENTION AND OBSERVATIONAL STUDIES RELATING
MARKER LEVELS (M) TO MACHINE YIELDS (Y)**

USE FORMULA $M = \alpha Y^{1-C}$

C = 0 NO COMPENSATION

C = 1 COMPLETE COMPENSATION

C = 0.73 CARBON MONOXIDE

C = 0.66 NICOTINE

50% REDUCTION IN YIELD LEADS TO REDUCTION IN INTAKE OF

17% FOR CO

21% FOR NICOTINE

24% FOR TAR

"COMPENSATION" BY MANNER OF SMOKING (2)

ADLKOFR (1989)

- **TWO LARGE STUDIES**
- **SERUM COTININE MEASURED ON MULTIPLE OCCASIONS**
- **BRAND AND CONSUMPTION DETAILS RECORDED**

C FOR NICOTINE

C = 0.75 WITHIN-SMOKER

C = 0.57 BETWEEN-SMOKER

"COMPENSATION" BY MANNER OF SMOKING (3)

PRITCHARD AND ROBINSON (1996)

- **REVIEW OF EIGHT DATA SETS RELATING USUAL-BRAND NICOTINE YIELD TO BLOOD COTININE CONCENTRATION**
- **COTININE CONCENTRATIONS MIDWAY BETWEEN COMPLETE AND NO COMPENSATION**

"COMPENSATION" BY MANNER OF SMOKING (4)

WOODWARD AND TUNSTALL-PEDOE (1992)

1161 MEN

1621 WOMEN

$$\text{TAR INDEX} = \frac{\text{COTININE X TAR YIELD}}{\text{NICOTINE YIELD}}$$

	LOW TAR	MIDDLE TAR	HIGH TAR
MALE			
TAR YIELD	8.04	13.35	16.09
	0.50	0.83	1.00
TAR INDEX	0.81	0.95	1.00
FEMALE			
TAR YIELD	7.69	13.26	15.96
	0.48	0.83	1.00
TAR INDEX	0.59	0.88	1.00

PM3001499043